DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Water Protection Bureau

Name of Project: Countryside Estates Subdivision

Type of Project: Proposed discharge of treated domestic wastewater to ground water under the Montana Ground Water Pollution Control System (MGWPCS) permit program.

Location of Project: Southeast ¼ of Northeast ¼ Section 09, Township 01 South, Range 04 East
Latitude: 45.76519°, Longitude: -111.22889°

City/Town: Belgrade

County: Gallatin County

Description of Project: This Environmental Assessment (EA) is for a renewal MGWPCS permit (MTX000177) for the Countryside Estates Subdivision (facility). The proposed MGWPCS permit reauthorizes the Daniel Purcell (permittee) to discharge treated wastewater from a subsurface discharge structure (Outfall 001) into Class I ground water. The scope of this EA addresses the operation of the wastewater treatment and disposal system. The magnitude and significance of potential impacts are summarized below (bullet #26).

Agency Action and Applicable Regulations: The proposed action is to reissue the existing individual MGWPCS permit that contains effluent limitations, wastewater monitoring and reporting, and ground water monitoring and reporting requirements. The permit is issued under the authority of the Montana Water Quality Act.

Summary of Issues: The purpose of this action is to regulate the discharges of pollutants to state waters from the regulated facility. Issuance of an individual permit will require the permittee to implement, monitor, and manage practices to prevent pollution and degradation of ground water.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts).

N = Not Present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	**[N]** No significant impacts have been identified. The discharge will increase the amount of moisture in the vadose zone. No significant limiting layers were identified in the soil profile.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	**[N]** No significant impacts have been identified. The ground water in the vicinity of Outfall 001 is Class I ground water with a specific conductance less than 1,000 µS/cm. The Department maintains beneficial uses in development of end-of-pipe numeric effluent limits as based on current water quality standards. The groundwater resource in this area provides drinking water to a number of public water supplies and private household wells. The location is in the East Gallatin River watershed. The East Gallatin River and several of its tributaries have identified nutrient impairments. DEQ has developed total maximum daily loads and associated wasteload and load allocations.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	**[N]** No significant impacts have been identified.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	**[N]** No significant impacts have been identified. The wastewater treatment system and discharge structure have already been built and are currently in use. Based on a search of the Natural Heritage Database, there are no vegetative species listed as either S1, S2, LE, or LT in the general vicinity of the facility. http://fieldguide.mt.gov/statusCodes.aspx#msrc:rank
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	**[Y]** Based on a search of the Natural Heritage Database, there is one mammal species and one invertebrate species listed as either S1 (at high risk), S2 (at risk), LE (listed endangered), or LT (listed threatened) in the immediate vicinity of the proposed facility. The project is located within general grizzly bear

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	(*Ursus arctos*) habitat. The State of Montana lists grizzly bears as S2S3 (at risk). The Alberta snowfly (*Isocapnia Integra*) is listed as S2 (at risk) in Montana due to very limited and/or potentially declining population numbers, range and/or habitat, making it vulnerable to extinction in the state. https://mtnhp.org/SpeciesOfConcern/?AorP=a
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	**[Y]** Grizzly bears (*Ursus arctos*) are listed as threatened under the Endangered Species Act. https://www.fws.gov/species/brown-bear-ursus-arctos-horribilis
7. SAGE GROUSE EXECUTIVE ORDER: Is the project proposed in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: https://sagegrouse.mt.gov/	**[N]** The project site is not listed as being located within sage grouse habitat. DEQ referred to the Habitat and Occurrence mapping program at https://sagegrouse.mt.gov/ProgramMap.
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological, or paleontological resources present?	**[N]** No significant impacts have been identified. A general recommendation by the Montana State Historic Preservation Office (MSHPO) states that if cultural materials are inadvertently discovered, the permittee should contact the MSHPO office for investigation. https://mhs.mt.gov/Shpo/
9. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	**[N]** No significant impacts have been identified. The existing discharge structure has been constructed in the subsurface.
10. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR, OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded power line or other energy source be needed?	**[N]** No significant impacts have been identified. The Department maintains beneficial uses in development of end-of-pipe numeric effluent limits as based on current water quality standards.
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	**[N]** No significant impacts have been identified.
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	**[N]** No significant impacts have been identified.

IMPACTS ON THE HUMAN ENVIRONMENT	
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	**[N]** No significant impacts have been identified.
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	**[Y]** The wastewater treatment system and discharge structure have already been built and currently are in use. The continued operation and maintenance of the wastewater treatment system may result in maintaining permanent jobs.
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	**[N]** No significant impacts have been identified.
16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	**[N]** No significant impacts have been identified. The continued operation and maintenance of the existing wastewater treatment may result in continued minimal traffic.
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	**[Y]** Operation and maintenance of the existing wastewater collection, treatment, and disposal system is an integral part of a County Water and Sewer District.
18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	**[N]** No significant impacts have been identified.
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	**[N]** No significant impacts have been identified.
20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	**[N]** No significant impacts have been identified.
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	**[N]** No significant impacts have been identified.
	[N] No significant impacts have been identified.

IMPACTS ON THE HUMAN ENVIRONMENT	
22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	
23(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	**[N]** No significant impacts have been identified.
23(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	**[N]** No significant impacts have been identified.
23(c). PRIVATE PROPERTY IMPACTS: If the answer to 23(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	**[N]** No significant impacts were identified in 23(b).

24. **Description of and Impacts of other Alternatives Considered:**

A. No Action: Under the "No Action" alternative, the Department would not issue this ground water discharge permit. "No Action" may lead to the creation of non-permitted wastewater systems. This may result in a net negative impact to ground water quality as the permit would prevent pollution and degradation of state waters.

B. Approval with Modification: The Department has not identified any necessary modifications to grant approval.

25. **Direct, Secondary, and Cumulative Effects:**
DEQ considered the direct, secondary, and cumulative environmental impacts of the construction and operation of the facility and found no significant adverse effects on water quality, the human environment, and the physical environment. The DEQ analysis included the cumulative impact from other past and present actions.

All major discharge permitting actions, including the current action and any future actions, will include any substantive information derived from public input relating to potential impacts on the

human environment and on water quality. All future actions related to this current action will be addressed by DEQ through additional discharge permitting process procedures. Any actions that are outside the prevue of the discharge permit may not be addressed by DEQ until the next permitting action takes place.

To protect beneficial uses, there shall be no increase of a pollutant to a level that renders the waters harmful, detrimental, or injurious. Therefore, no wastewaters may be discharged such that the wastewater either alone or in combination with other wastes will violate or can reasonably be expected to violate any standard.

The allowable discharge will be derived from a mass-balance equation that determines the assimilative capacity of the receiving aquifer. This factors in the cumulative impacts of all existing upgradient discharges in the receiving aquifer.

A ground water monitoring network has been established that will provide for long-term monitoring of the aquifer. The ground water data collected will provide for DEQ to continually monitor the health of the aquifer including the impacts of any upgradient dischargers. This data is made available to the public for their viewing and will be continually used by DEQ to update permit limitations. In addition, any update to limitations, including cumulative effect analyses, will be noticed to the public and will undergo public comment.

Long-term monitoring and reporting, continual analysis and updates of permit conditions, and public notice and comment procedures is a benefit to having a system that is covered under a discharge permit.

26. **Summary of Magnitude and Significance of Potential Impacts:**
Impacts were assessed with the assumption that the facility will comply with the terms and conditions of the permit. Violations of the permit could lead to significant adverse impacts to state waters. Violations of the permit are not an effect of the agency action since the permit itself forbids such activities. However, the Department has taken steps to ensure that violations do not occur. The Department provides technical assistance to permittees for operation and maintenance, and in understanding and implementing the requirements of the permit. The Department also conducts periodic inspections of permitted facilities and identifies potential problems with design or management practices. If violations of the permit do occur, the Department will take appropriate action under the Montanan Water Quality Act. Enforcement sanctions for violations of the permit include injunctions, civil and administrative penalties, and cleanup orders.

27. **Preferred Action Alternative and Rationale**: The preferred action is to reissue the existing individual MGWPCS discharge permit. This action is preferred since the permit provides a regulatory mechanism for protecting ground water quality by applying effluent limits and monitoring requirements to the discharged wastewater.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [**X**] No Further Analysis

Rationale for Recommendation: An EIS is not required under the Montana Environmental Policy Act because the project lacks significant adverse effects to the human and physical environment.

28. **Public Involvement:**

Legal notice information for water quality discharge permits is listed at the following website:

http://deq.mt.gov/Public/notices/wqnotices.

Public comments on this proposal are invited any time prior to close of business on August 24, 2022. Comments may be directed to:

DEQWPBPublicComments@mt.gov

or to:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620

All comments received or postmarked prior to the close of the public comment period will be considered in the formulation of the final permit. DEQ will respond to all substantive comments pertinent to this permitting action and may issue a final decision within thirty days of the close of the public comment period.

All persons, including the applicant, who believe any condition of the draft permit is inappropriate, or that DEQ's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period (including any public hearing). All public comments received for this draft permit will be included in the administrative record and will be available for public viewing during normal business hours.

Copies of the public notice are mailed to the applicant, state and federal agencies, and interested persons who have expressed interest in being notified of permit actions. A copy of the distribution list is available in the administrative record for this draft permit. Electronic copies of the public notice, draft permit, fact sheet, and draft environmental assessment are available at the following website: http://deq.mt.gov/Public/notices/wqnotices.

Any person interested in being placed on the mailing list for information regarding this permit may contact the DEQ Water Protection Bureau at (406) 444-5546 or email DEQWPBPublicComments@mt.gov. All inquiries will need to reference the permit number (MTX000125), and include the following information: name, address, and phone number.

During the public comment period provided by the notice, DEQ will accept requests for a public hearing. A request for a public hearing must be in writing and must state the nature of the issue proposed to be raised in the hearing.

29. **References used in the Preparation of this Analysis:**

Administrative Rules of Montana, Title 17, Chapter 30, Water Quality:
https://rules.mt.gov/gateway/ChapterHome.asp?Chapter=17%2E30

- Subchapter 2 - Water Quality Permit Fees.
- Subchapter 5 – Mixing Zones in Surface and Ground Water.
- Subchapter 7 – Nondegradation of Water Quality.
- Subchapter 10 – Montana Ground Water Pollution Control System.
- Subchapter 13 – Montana Pollutant Discharge Elimination System.

Department of Environmental Quality, Water Quality Circulars:
https://deq.mt.gov/water/resources

- Circular DEQ-2 – Design Standards for Wastewater Facilities.
- Circular DEQ-4 – Montana Standards for On-Site Subsurface Sewage Treatment Systems.
- Circular DEQ-7 – Montana Numeric Water Quality Standards, Required Reporting Values, and Trigger Values.

Montana Bureau of Mines and Geology
https://www.mbmg.mtech.edu/

Montana Historical Preservation Society
https://mhs.mt.gov/Shpo/

Montana Natural Heritage Program
https://mtnhp.org/

Natural Resource Information System, Montana State Library
https://nris.msl.mt.gov/

USDA, Natural Resources Conservation Service Soil Survey
https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

United States Geological Survey, Publication Warehouse

https://pubs.er.usgs.gov/

EA Checklist Prepared By:

Michelle Peziol June 28, 2022

Approved By:

Jon Kenning, Chief
Water Protection Bureau

DRAFT

Signature Date